

KHUEANOVA, D., d-r; PENGHEV, V.

Composition and nutrient properties of cucumbers. Prir i znanie 15
no.8:4-8 Ag '62.

PENCHEV, V., d-r

Chemical composition and healing properties of celery. Prirodno
znanie 15 no.9:4-8 N '62.

L 1872-65 ENI(m)/EPP(c)/I Pr-4 WE

ACCESSION NR: AP5017010

UT/0204/64/004/005/0813/0318

AUTHOR: Shopov, D.; Penchev, Vl.; Davidova, N.

TITLE: Composition of the solid hydrocarbons of petroleum

SOURCE: Neftekhimiya, v. 4, no. 6, 1964 812-818

TOPIC TAGS: petroleum, hydrocarbon, paraffin wax, chemical compounds

ABSTRACT: The naphthenic-aromatic solid hydrocarbons of petroleum of the Tula-nava region (Iulzaria) were investigated by dewaxing the deasphalted

Card 1/2

L-118713-65

ACCESSION NR: AP5017010

Isotope redoxations are negligible in comparison with the control of

Orig. art. name: 2-15-1965

ASSOCIATION: Institut organicheskoy khimii Bolgarskoy Akademii Nauk
of Organic Chemistry, Bulgarian Academy of Sciences, Sofia

SUBMITTED: 24-10-65

NO REF SOV: 006

OTHER: 006

JPRS

Card 1/2

~~PENICHEV, V.~~

"Investigation of the heavy residue from petroleum of the Tiulenovo deposits."

p. 36. (Khimiia i Industriia, vol. 30, no. 2, 1958, Sofia, Bulgaria)

Monthly Index of East European Accessions (MEAI) LC, Vol. 7, no. 12, Dec 58

BULGARIAN/Chemical Technology. Chemical Products and Their
Applications. Chemical Processing of Natural
Gases and Petroleum. Motor and Rocket Fuels.
Lubricants.

II

Abs Jour: Ref Zhur-Khim., No 8, 1959, 28931.

Author : Penchev, V.

Inst :

Title : The Coking of Seal Oil Tar.

Orig Pub: Tozhka Promishlenost, 7, No 3, 18-20 (1958) (in Bulgarian)

Abstract: The coking of 33% seal oil tar [sic] by a semicontinuous process has been investigated at temperatures of 490-565°. When the process temperature is increased, the yield of gaseous products is increased from 9.0 to 21.5% and the yield of gasoline (G) is

Card : 1/2

PENCHEV, V.; SHOPOV, D.; DAVIDOVA, N.

Kinetics of catalytic cracking of kerosene-gasoil fraction of oil around Pleven. Doklady BAN 16 no.6:629-632 '63.

1. Submitted by Corresponding Member B. Kourtev [Kurtev, B.].

PENCHEV, V.

Normal paraffin hydrocarbons in the 25-307°C fraction of oil
obtained from Pleven region. Doklady BAN 16 no.6:633-636 '63.

1. Submitted by Corresponding Member B.Kourtev [Kurtav, B.].

SHOPOV, D.; PENGHEV, V.; ANDREEV, A.

Hydrocarbon changes in hydrocarbon-naphthene-paraffin part of fraction 400-450° of Tyulenovo oil after-low-temperature catalytic treatment. Doklady BAN 16 no.1:81-84 '63.

1. Submitted by Corresponding Member B. Kourtev [Kurtev, B.].

PENCHEV, V., d-r

Biological significance of microelements. Biol i khim 5 no.1:
8-13 '63.

PENCHEV, V., d-r

Ultrastructures of the cell. Biol i khim 7 no.5:9-17 '64.

PENCHEV, V. Zh. Cand Tech Sci -- (diss) "Study of the Heavy
Residues of Bulgarian Petroleum from the Tyule Deposit and
the ~~Ways and Means~~ ^{for} of their Rational Processing." Mos, 1957.
10 pp 22 cm. (Min of Higher Education SSSR, Mos Order of Labor
Red Banner Petroleum Inst im Academician I. M. ~~KROKHIN~~ Gubkin,
Chair of ^{Technology of} Petroleum and Gas ~~Engineering~~), 120 copies (KL, I8-57, 96)

PENCHEV, VI.

Some problems in the chemistry and technology of oxidized bitumens. Izv Inst khim BAN no.8:209-223 '61.

L 64450-65 ENT(m)/BJA(h)
ACCESSION PR: AP5023143

25/0012/64/007/003/0195/0199

AUTHOR: Ganchev, Mikhail; Penchev, Vladimir; Popits, Robert

TITLE: Measurement of individual doses of x-rays using film dosimetry

SOURCE: Fiziko-matematicheskoe spisanie, v. 7, no. 3, 1964, 195-199

TOPIC TAGS: x ray, radiation dosimetry

Abstract: After explaining the theoretical basis and describing the practical applications of film dosimetry, the authors report that during the period 15 May - 15 October 1961 and 1 October 1962 - 30 July 1963 they processed 3378 "Adox" films exposed by 200 members of the X-ray personnel at 27 medical institutions. 23.6% showed 1-100 mR monthly dose, 1.4% showed 200 mR, 1.4% between 201 and 400 mR, while 1.4% read errors. The orig. art. has 2 figures, 5 graphs, and 1 table.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: GP, NP

NO REF SOV: 000

OTHER: 000

GANCHEV, Mikhail; PENCHEV, Vladimir; POPITS, Robert

Measuring individual doses of X-ray radiation by the method of
film dosimetry. Fiz mat spisanie BAN 7 no.3:195-199 '64.

PENTCHEVA, E. [Pencheva, E.]

Microchemical criterion characterizing nitrogenous hot springs
of Bulgaria. Doklady BAN 17 no.11:1021-1024 '64.

1. Geologic Institute of the Bulgarian Academy of Sciences. Submitted
June 26, 1964.

PETROV, P.; PENGHEVA, E.; IOTOV, I.; PAVLOVA, V.

Mineral waters in the region of the Gotse Delchev Valley. Trudove
vurkhu inzh geol khidrol 3:187-205 '64.

1. Submitted December 4, 1963.

PENCHEVA, Ye. [Pencheva, E.]; PETROV, P.

Geochemical studies of helium and argon in natural gases of northern Bulgaria. Doklady BAN 17 no.11:1039-1042 '64.

1. Geologic Institute of the Bulgarian Academy of Sciences.
Submitted July 15, 1964.

ACCESSION NR: AP5021293 BU/0011/64/017/011/1039/1042

AUTHOR: Pencheva, E.; Petrov, P.

TITLE: Geochemical studies of helium and argon in natural gases found in northern Bulgaria

SOURCE: Bulgarska akademiya na naukite. Doklady, v 17, no. 11, 1039-1042

TOPIC TAGS: helium, argon, natural gas, geochemistry, prospecting

ABSTRACT: Geological prospecting in Northern Bulgaria carried out by the Main Administration for Geological Prospecting uncovered several previously unknown sites of natural gas. The abundance of He and Ar were studied at 12 sites and the results (presented in the form of a table) show that the increased helium content at some of the sites may warrant an industrial exploitation of He. Orig. art. has: 1 table.

ASSOCIATION: Institut geologii Bolgarskoy akademii nauk (Institute of Geology, Bulgarian Academy of Sciences)

SUBMITTED: 00

ENCL: 00

SUB CODE: ES, TC

NR REF NOV: 003

OTHER: 005

JPRS

Cord 1/1

PETROV, P. St.; PENCHEVA, E.N.; PAVLOVA, V.N.

Geochemical studies of natural gases from thermal springs in the
valley of the Struma River. Izv Geol inst BAN 12:245-256 '63.

PENCHEV, N.P.; PENCHEVA, E.N.

Manometric determination of helium in neutral gases. Izv Geol inst
BAN 12:257-266 '63.

PETROV, P.St.; PENCHEVA, E.N.

Hydrochemistry of the rare and dispersed elements in
Bulgarian mineral waters. Izv Geol inst BAN 10:267-301
'62.

PENCHEVA, E. N.

Distribution of the rare and dispersed elements in the hot mineral
water of the Rila- Rhodope Mountains region. Izv Geol inst BAN no.9:
91-120 '61.

PENCHEVA, E.N.

Spectrographic research on the microelements of the mineral waters
in the Chapino River Valley. Izv Geol inst BAN 8:193-221 '60.
(EEAI 10:5)

(Bulgaria--Mineral waters)
(Spectrum analysis)
(Trace elements)

PENCHEVA, E.N.

Distribution of the rare elements in the thermomineral waters
of the Rila-Rhodope region. Izv Geol inst BAN 9:91-120 '61.

PENCHEVA, E.N.; PAVLOVA, V.N.

Trace elements in the brine of the Pomorie Lake. Trudove wurkhu
inzh geol khidrol 3:207-222 '64.

1. Submitted December 4, 1963.

Pencheva, P.

"Vietnam Republic", P. 17

(GEOGRAPHIA, Vol. 4, No. 8, 1954 - Bulgaria)

SC: Monthly list of East European Accessions, (EEAL), LC, Vol. 4, No. 4,
Apr. 1955, Uncl.

PENCHEV, N.P. (Sofiya, Bolgariya); PENCHEVA, Ye.M. (Sofiya, Bolgariya);
BONCHEV, P.R. (Sofiya, Bolgariya)

Chemical composition of the Gumoshnik meteorite. Meteoritika
no.18:144-146 '60. (MIRA 13:5)
(Troyan Mountains (Bulgaria)---Meteorites)

PENCHEVA, P.

"Caspian Sea, the largest lake in the world." (p.6). GEOGRAFIIA
(Bulgarsko Geografsko Druzhestvo) Sofiya, Vol 4 No 1 1954

SO: East European Accessions List, Vol 3 No 8 Aug 1954

KHUBANOVA, D., d-r; PENCHEV, V.

Composition and nutrient properties of lettuce. Prir i znanie
16 no.7:12-16 S '63.

PEN CHEVA, Y. N.

PLATE 1 BOOK EXPLANATION 80/1291
50/51-5-98

Abstracts and SSN. Excerpt to sections

Meteorites (booklet series, Y.P. 13 (Meteorites: collection of articles, No. 13)
Moscow, M. SSSR, 1960. 1,200 copies printed.

Ed.: V.O. Pesenkov, Academician; Deputy Insp. Ed.: Ye. L. Fridov, Lt. of Publishing
House: I. Ye. Babitskiy, Tech. Ed.: A.F. Osipov.

NOTE: This publication is intended for astrophysicists, astronomers, and geologists, particularly those interested in the study of meteorites.

CONTENTS: This collection of 26 articles on problems in meteoritics includes the
Proceedings of the Ninth Meteoritic Conference which took place in Moscow,
June 1 - 5, 1959. An introductory article reviews recent progress in the field,
particularly in the matter of determining the age of meteorites. Subsequent
articles discuss the fall, physical and chemical properties, and age of meteor-
ites. The danger presented by meteorites to artificial earth satellites is dis-
cussed. V.O. Pesenkov describes the theory and solution of problems for
determining the distribution of meteorites in the atmosphere during lunar eclipses.
References accompany individual articles.

ARTICLES

<u>Pesenkov, V.O., Academician. On the Theory of Lunar Eclipses</u>	155
<u>Ye. L. Fridov, Lt. of Publishing House. Considerations on the Collection of Meteoric Substances</u>	156
<u>in Polar Regions</u>	
<u>Dobsonov, I.K. Mass Spectral Determination of Isotopic Cases in Iron</u>	161
<u>Bozhov, R.Ye., Academician, Ye. L. Fridov, Lt. of Publishing House</u>	164
<u>On the Chemical Composition of the Osmobulit Meteorite (Bulgaria)</u>	
<u>Yakov, I.A. Microanalytical Investigation of the Rikol'skaya Stone Meteorite</u>	167
<u>Kolomoyskiy, V.D. Results of the Röntgenometric Investigation of the</u>	
<u>Rikol'skaya Stone Meteorite</u>	155
<u>ATTACHED: Library of Congress</u>	

Card 5/5

21/ end/eng

COUNTRY : Bulgaria D
 CATEGORY :
 ABS. JOUR. : RZKhim., No. 1959, No. 85930
 AUTHOR : Penchev, N.P.; Pencheva, Ye.N.; Bonchev, P.R.
 INST. : Bulgarian Academy of Sciences
 TITLE : Spectrographic Study of Trace-Components of
 Bulgarian Mineral Waters.
 ORIG. PUB. : Dokl. Bolg. AN, 1958, 11, No 5, 375-377
 ABSTRACT : In the most widely known Bulgarian mineral
 waters a qualitative and semi-quantitative determination
 was made, by means of spectrographic analysis, of more
 than 20 trace-components. Of these, Cu, Pb, Fe, Al, Ti,
 and Sr are found in all, or almost all, the waters under
 study. Mn, Zn, V, Ag, are encountered very frequently.
 A certain regularity is observed between the content of
 Mo, Ga, Ge, W, Li, and Ba, and the general hydrochemical
 characteristics of the water. In the case of some of the
 waters there is found a correlation between Li-content and
 the amount of He in the gases associated with the water.
 Cr and Ni are encountered in a few instances, in relatively
 smaller amounts; Co, Be, Sb are quite rare. Data
 CARD: concerning B are not reliable. -- V. Konshin.

S7

PENCHEVA, ZH.

TANCHEV, I.; EVSTATIEV, TSv.; DORSIEV, D.; PENCHEVA, ZH.;
TSVETKOV, G.

Study of nephritis in Vratsa district. Suvrem. med., Sofia 7 no.9:
14-29 1956.

1. Iz Okruzhnata bolnitsa "Khristo Botev" - Vratsa (Gl. lekar:
P. Koler).

(NEPHRITIS, statist.
in Bulgaria)

PENCHEVSKIY, I.M., mayor

Relay race in tactics and firing. Voen. vest. 41 no.9:77-78 S
'61. (MIRA 15:1)

(Infantry drill and tactics)

PENCHKO, N.A.

[Founding of Moscow University] Osnovanie Moskovskogo universiteta.
[Moskva] Izd-vo Moskovskogo universiteta, 1953. 191 p. (MLRA 6:8)
(Moscow University--History)

1. PENCHKO, N. A.
2. USSR (600)
4. Gogol" Nikolai Vasil'evich, 1809-1852.
7. N. V. Gogol's connection with Moscow University. Vest. Mosk. un. 7 no. 7, 1952.

9. Monthly List of Russian Accessions, Library of Congress, January, 1953. Unclassified.

S/032/61/027/002/020/026
B101/B209

AUTHOR: Penchko, Ye.A.

TITLE: Measurement of pressures down to 10^{-2} mm Hg by means of an LM-2 pressure gauge

PERIODICAL: Zavodskaya laboratoriya, v. 27, no. 2, 1961, 214 - 215

TEXT: By means of the LM-2 (LM-2) pressure gauge, pressures down to initiation of electric discharge ($5 \cdot 10^{-2}$ mm Hg) may be theoretically measured. However, the useful measuring range is shorter since already at $(2-3) \cdot 10^{-3}$ mm Hg a large deviation from linearity occurs as a consequence of a high space charge. By reducing the emission of the pressure-gauge cathode from 5 to 0.5 ma, pressures higher by one order of magnitude may be measured. The required reconstruction of the BM-3 (VI-3) or BMT-1 (VIT-1) vacuum gauge concerns only the circuit of the emission current and the setting of the stabilizer to the new conditions. After reconstruction it was found that emission current stabilization is appreciable down

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Measurement of pressures down ...

S/032/61/027/002/010/026
B101/B209

to 10^{-3} mm Hg but becomes less stable in the range between 10^{-3} and 10^{-2} mm Hg. Therefore the emission current has to be regulated before every measurement. The linear dependence between emission current and gas pressure was maintained until $7 \cdot 10^{-3}$ mm Hg. The relative sensitivity coefficient, referred to air = 1, was 1.53 for CO_2 . The lower limit of sensitivity ($5 \cdot 10^{-7}$ mm Hg) remained unchanged. The stability test of two pressure gauges in the range of $(2-3) \cdot 10^{-3}$ mm Hg gave satisfactory results. The modified LM-2 pressure gauge may be used instead of the LT-2 (LT-2) mercury pressure gauge in the range between 10^{-3} and 10^{-2} mm Hg if precise measurement is required. However, the lifetime of the pressure gauge decreases considerably with increasing pressure (particularly oxygen pressure), because at 10^{-2} mm Hg the cathode burns out after 2.5 hr. There is 1 figure.

Card 2/2

ACCESSION NR: AP4018381

S/0120/64/000/001/0146/0151

AUTHOR: Penchko, Ye. A.; Rafal'son, A. E.; Tsy*mborov, M. Ya.

TITLE: Ionization manometer for 1 to 10^{-5} torr range

SOURCE: Pribery* i tekhnika eksperimenta, no. 1, 1964, 146-151

TOPIC TAGS: manometer, ionization manometer, dismountable manometer, wide-range vacuumeter, vacuumeter

ABSTRACT: An improvement of Ye. A. Penchko's ionization gauge consisting of a cathode and three parallel disks (anode-collector cross-fields) is described (see PTE, 1961, no. 1, p. 170) which permits easy dismemberment in case of a cathode replacement. Design details are reported. Anode-collector voltage, 216 v; cathode-collector voltage, 68 v; cathode emission current, 100 microamp; heater voltage, 1.1 v; heater current, 3 amp. A special vacuumeter (electric circuit diagram presented) is used for supplying the gauge and for measuring the

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ACCESSION NR: AP4018381

ion current. It is claimed that, with supply-voltage variations of $\pm 15\%$ and a pressure within the $1 - 10^{-5}$ torr range, the emission current varies only to within $\pm 2\%$. It is reported that the instrument was in actual operation for over 500 hrs with no cathode burnout, leak, or other trouble. Orig. art. has: 6 figures and 3 formulas.

ASSOCIATION: SKB Analiticheskogo priborostroyeniya AN SSSR (SKB of Analytical Instrument Designing, AN SSSR)

SUBMITTED: 22Feb63

DATE ACQ: 18Mar64

ENCL: 00

SUB CODE: PH

NO REF SOV: 002

OTHER: 001

Card 2/2

SOV/120-59-4-38/50

AUTHORS: Penchko, Ye. A., Khavkin, L. P., Borodkin, A. S.

TITLE: Production of Extremely High Vacua

PERIODICAL: Priory i tekhnika eksperimenta, 1959, Nr 4, p 146 (USSR)

ABSTRACT: Some tests are reported on a sealed tetrode ionization gauge immersed in liquid helium at 1.9°K. The gauge is sealed off at 10^{-6} mm Hg; the limiting pressure recorded is about 3×10^{-9} mm Hg, and the approach to that limiting pressure is such as to indicate that two distinct groups of gases are involved. This residual pressure has two causes: 1) the filament heats the glass bulb and releases gas (this cause is removed by using a bulb consisting almost entirely of copper), and 2) the residual gas in the bulb (at 10^{-6} mm Hg), which is released when the stem

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SOV/120-59-4-38/50

Production of Extremely High Vacua

is sealed, contains sufficient He to correspond to a pressure of about 8×10^{-10} mm Hg. The paper contains 2 references, 1 of which is Soviet and 1 English.

SUBMITTED: May 22, 1958.

Card 2/2

PENCHKO, Ye.A.

Air-proof ionization manometer. Prib. i tekhn. eksp. 6 no.1:
170-173 Ja-F '61. (MIRA 14:9)

(Manometer)

20710

S/120/61/000/001/052/062
EO32/E11426, 2212
AUTHOR: Penchko, Ye.A.

TITLE: Stable-Cathode Ionisation Gauge

PERIODICAL: Pribery i tekhnika eksperimenta, 1961, No.1, pp.170-173

TEXT: The manometer is shown schematically in Fig.1. The anode and the collector are in the form of two nickel plates mounted on rigid kovar leads. The envelope is made of 3C-5 (ZS-5) glass. Fig.3 shows the dimensions of the directly heated cathode. The cathode consists of an iridium core covered by a layer of ThO_2 or Y_2O_3 . The gauge is operated under the following conditions: anode-collector potential difference + 216 V, cathode-collector potential difference + 68 V, emission current from the cathode 10^{-4} A, cathode supply voltage 1.1-1.5 V, heating current 1.4-1.7 A. The gauge works in conjunction with a specially designed control unit consisting of a power pack, an ion current amplifier and gauge-head supplies. The balanced ion-current amplifier measures currents between 10^{-9} and 10^{-4} A. The ionization gauge can be used to measure air, nitrogen, hydrogen and helium gas pressures between 10^{-5} and 1 mm Hg. The ion current at

Card 1/4

PENCHKO, Ye.A.; RAFAL'SON, A.E.; TSYMBEROV, M.Ya.

Ionization gauge for the range $1 \div 1.10^{-5}$ torr. Prib. i tekhn.
eksp. 9 no.1:146-151 Ja-F '64. (MIRA 17:4)

1. Spetsial'noye konstruktorskoye byuro analiticheskogo
priborostroyeniya AN SSSR.

SOV/120-59-1-31/50

AUTHORS: Penchko, Ye. A., Khavkin, L. P.

TITLE: A Tetrode Ionisation Manometer (Tetrodnyy ionizatsionnyy manometr)

PERIODICAL: Pribery i tekhnika eksperimenta, 1959, Nr 1, pp 128-129 (USSR)

ABSTRACT: The ion current in an ionisation manometer is proportional to the anode current and the gas pressure. The constant of proportionality depends on the form and the dimensions of the electrodes and the potentials applied to them. In order that the ion current should be a linear function of the pressure it is necessary to keep constant both the anode current and the working potentials applied to the electrodes. The voltages can be quite easily stabilized but the stabilization of the anode current is more difficult. In some cases the anode current is stabilized by means of negative feedback between the anode current and the heater currents as shown in Fig 1. This device is not very convenient in practice. The device now described (Fig 2) is more convenient. The device uses a tetrode working in the space-charge region. Negative feedback is used to stabilize the anode current as shown in Fig 2. Typical electrode assemblies are shown in Fig 4. The manometer with a cylindrical collector (on the right) is designed

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SOV/120-59-1-31/50

A. Tetrode Ionisation Manometer

for use between 10^{-7} and 10^{-3} mm Hg. It has a tungsten cathode 0.04 mm in diameter. The control grid and the anode grid are coaxial and made of nickel wire 0.2 mm in diameter. The collector is in the form of a cylinder 28 mm in diameter. The manometer with the axial collector is designed for the pressure range 10^{-9} - 10^{-4} mm Hg. It has a tungsten cathode 0.05 mm in diameter placed asymmetrically on the periphery. The cylindrical anode grid is made of nickel wire 0.2 mm in diameter. The control grid is plane and is placed between the cathode and the anode grid at a distance of 2 mm from each. It is also made from nickel wire. The collector is 0.1 mm in diameter and is made of tungsten. It is placed along the axis of the anode grid. The working values of the various parameters are given in the table on p 129. The latter manometer

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SOV/120-59-1-31/50

A Tetrode Ionisation Manometer

is similar to that described by Bayard and Alpert (Ref 1).
There are 4 figures, 1 table and 1 English reference.

SUBMITTED: January 2, 1958..

Card 3/3

PENCHKO, Ye.A.

IM-2 manometer for measuring pressures up to 10^{-2} mm. Hg.
Zav.lab. 27 no.2:214-215 '61. (MIRA 14:3)
(Pressure—Measurements)

PENCHKO, Ye.A.

Transistor stabilizer of cathode emission in ionization
manometers. Prib. i tekhn. eksp. 6 no.4:99-100 J1-Ag '61.
(MIRA 14:9)

(Manometer)

PENCHOVSKI, B.

"Conference for Exchanging Experiences", P. 431. (GORSKO STOPANSTVO,
Vol. 10, No. 9, Nov. 1954, Sofiya, Bulgaria)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4,
No. 6, June 1955, Uncl.

PENCHOVSKI, E.

"Applying Labor Norms in the Sevlievo Forest Land Enterprise." p. 372. (GORSKO STOPANSTVO , Vol. 9, no. 8, Oct. 1953, Sofia, Bulgaria.)

So: Monthly List of East European Accessions, LC, Vol. 3, No. 5, May 1954;Unclassified

ACC NR: AP7000350	SOURCE CODE: UR/0413/66/000/022/0115/0116
INVENTOR: Goron, I. Ye.; Baranov, Yu. A.; Dembinskiy, V. F.; Merkin, I. Kh.; Pankov, G. A.; Penchuk, N. V.; Szolyanitskiy, V. Z.; Volkov, Yu. D.	
ORG: none	
TITLE: Electromagnetic flaw detector. Class 42, No. 188737	
SOURCE: Izobreteniya, promyshlennyye obratzsy, tovarnyye znaki, no. 22, 1966, 115-116	
TOPIC TAGS: flaw detector, magnetic flaw detector, magnetic field configuration , electromagnetic device <i>flaw detection, electromeasuring device,</i> <i>electromagnetic device</i>	
ABSTRACT: This Author Certificate introduces an electromagnetic flaw detector containing 1) a primary magnetic flux conductor for magnetizing the inspected article, 2) a secondary magnetic flux conductor for duplicating the magnetic field configuration of the article surface, 3) generators with alternating magnetic field ensuring hysteresis-free transfer of the magnetic field configuration, and 4) magnetic recording heads. To inspect shaped articles, the conductor is clamped to the article with elastic rings stretched over the article. To maintain its cylindrical shape, the secondary conductor is enclosed in a vacuum shell. Orig. art. has: 1 figure.	
SUB CODE: 1409	SUBM DATE: 11Aug65/
Cord 1/1	UDC: 620.179.14.08

PENCHUKOVA, V.M., studentka; TSFAS, B.S., dotsent, nauchnyy rukovoditel'
raboty

Determining reactions in an advancing pair. Sbor.dokl.Stud.
nauch.ob-va Fak.mekh.sel'.Kuib.sel'khoz.inst.no.1:36-38 '62.
(MIRA 17:5)

1. Kuybyshevskiy sel'skokhozyaystvennyy institut.

SKORIK, V.I.; KOCHETYGOV, N.I.; KONSTANTINOV, V.A.; FENSTER, G.S.;
PENCHUK, V.M. (Leningrad)

Model of burn emaciation in laboratory animals. Pat. fiziol. i
eksp. terap. 5 no.6:64-65 N-D '61. (MIRA 15:4)

1. Iz Voenno-meditsinskoy ordena Lenina akademii imeni S.M.Kirova.
(BURNS AND SCALDS)

GESHELE, E.F., doktor biolog. nauk, prof.; PENCHUKOVA, V.S.

Infection of wheat by common bunt. Agrobiologiya no.6:909-913
N-D '64. (MIRA 18:2)

1. Vsesoyuznyy selektsionno-geneticheskiy institut, g. Odessa.

PENCHUL, A.; ALEKSANDROVA, L.

Use of a water-oil emulsion for protecting marine diesel engine
cooling systems from corrosion. Mor. flot 18 no.7:16 JI '58.
(MIRA 11:7)

1. Nauchno-issledovatel'skiy institut goryuche-smazochnykh materialov.
(Marine diesel engines--Cooling)

BUTKOV, N.A., prof.; VOLKOV, A.S., inzhener-kapitan 1-go ranga; OSIPOVA,
L.M., inzh.; PENCHUL, A.F., kand.tekhn.nauk

Protection of cylinder bushings and internal combustion engine
blocks against corrosion. Mor. sbor. 46 no.7:73-78 Ял '63.

(MIRA 16:11)

PENCHUL, A.F.; VOLKOV, A.S.

Protecting wire tensometers from water at a higher temperatures.
Zav.lab. 26 no.3:379-380 '60. (MIRA 13:6)
(Strain gauges)

CZECHOSLOVAKIA / Forestry. Forest Cultures.

K

Abs Jour : Ref Zhur - Biologiya, No 18, 1958, No. 82219

Author : Pencik, Jan

Inst : Not given

Title : Planting in Little Holes and Chinks

Orig Pub : Lesn. práce, 1957, 36, No 10, 446-447

Abstract : The opinion is maintained that the best growth in plantings made in little holes (Czechoslovakia) continues only for the first years and then levels off with the growth of cultures in chink plantings. The advantage of the latter method is shown.

Card 1/1

PENCIC, M.

AGRICULTURE

Periodical: POLJIVREDA. Vol. 6, no. 9, Sept. 1958.

PENIC, M. Effect of the density of sowing on the yield and on some kinds of early
oats. p. 30.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, no. 3
March 1959 Unclass.

CZECHOSLOVAKIA

PENCIK, Milan,

Institute of Microbiology, Faculty of Medicine,
J.E.Purkyně University (Mikrobiologický ústav
lek. fakulty University J.E.Purkyně), Brno

Prague, Vnitřní lékařství, No 3, March 1966,
pp 256-264

"Quantitative investigation of bacteriuria."

BURCAR, Andras, inz.; PENCIC, Nevenka, inz.

Experiences in the tests on maize with aminotriazines in the area of
Backa Topola. Kem ind 12 no.5:387-392 My '63.

1. Poljeprivredna stanica, Backa Topola.

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tekh. red.

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Research on the role of sanitary education in prevention and control of zoonoses. J. hyg. epidem. (Praha) 9 no.1:77-79
Ja-F '64

1. Institutul de igiena si protectia muncii, Sectia de educatie sanitara.

✓ STAN, I.; TOTH, S.; PENCUC, T.; BATAGA, E.

Influence of the variation of the form of the earth on its
one motion. Pt.2. Studia Univ B-B S. Math-Phys 9 no.2:77-81
'64.

STAN, I.; TOTH, S.; PENCIUC, T.; BATAGA, E.

Influence of the variation of the form of the earth on its
motion. Studia Univ B-B S. Math-Phys 9 no.1:105-109 '64.

PENCSEV, Peter [Penchev, Peter]; (Szofia); DUDAS, Gyula, a foldrajzi
tudományok kandidátusa [translator]; RAGY, Jozsefne [translator]

Hydrologic conditions for the utilization of the river waters
in Bulgaria. Foldrajzi ert ll no.4:447-477 '62.

Pencus, M.

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Vol. 7, no. 5, May 1956.

INDUSTRIA TEXTILA.

TECHNOLOGY

ROMANIA

So: East European Accession, Vol. 6, No. 5, May 1957

LENDZION, Andrzej; PENCZEK, Bibiana; SKORA, Stanislaw

Epoxide resin adhesives modified with polyvinyl acetals. Polimery tworzywa wielocząst 7 no.2:68-72 F '62

1. Instytut Tworzyw Sztucznych, Warszawa.

PENCZAK, Tadeusz

Stickleback (*Gasterosteus aculeatus* L.) from Nova Scotia, Newfoundland and the French Island Saint-Pierre. *Annales zool.* 20 no.17:335-341 '62.

1. Katedra Zoologii Systematycznej, Uniwersytet, Lodz.

PENCZAK, Tadeusz

Materials on the location of the forms of *Gasterosteus aculeatus* L.
in Poland. Nauki matemat. przyrod. Lodz no.14:111-121 '63.

1. Katedra Zoologii Systematycznej, Uniwersytet, Lodz.

PENCZAK, Tadeusz

Regeneration of the lateral plates, fins, and spines of a
stickleback (*Gasterosteus aculeatus* L.). Nauki matemat. przyrod.
Lodz no.7:123-139 '60.

PENCZAK, Tadeusz

Do we know the real cause of Megaceros giganteus Blumb, the giant stag's having become extinct? Przegl zoolog 6 no.3:238,239,240 '62.

1. Katedra Zoologii Systematycznej, Uniwersytet, Lodz.

S/081/62/000/024/026/052
B117/B186

AUTHORS: Czarnecki, Jerzy, Kwasnik, Jerzy, Lewinski, Tadeusz,
Penczek, Piotr, Pyrko, Romuald

TITLE: Method for the production of nitrocellulose adhesives

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 24 (II), 1962, 892,
abstract 24P559 (Zakłady Chemiczne "Pronit". Polish pat.
44675, May 17, 1961)

TEXT: Nitrocellulose (I) (nitrogen content 10.5 - 11 %) dehydrated with ethyl alcohol (II), concentration 80 - 90 %, or aqueous nitrocellulose containing ~30 % water, are used for producing adhesives. When using aqueous nitrocellulose, substances are added to the adhesive which either react with water or bind the adhesive in the form of crystal water (MgSO_4 , Na_2SO_4 , or CaSO_4). The total amount or part of (I) can be replaced by waste celluloid. The latter is first decomposed by boiling in water with pyridine or in pure water at 140°C under pressure. 94 % ethyl alcohol (II) containing benzene, toluene, and small amounts of ether, ketones, or high-boiling alcohols is used as a solvent for (I).
Card 1/2

Method for the production of ...

S/081/62/000/024/026/052
B117/B186

The total amount of solvent is less than 30 %. 0.1 - 1 % of some resins soluble in a mixture of (II) and aromatic hydrocarbons as well as surface-active substances can be added to the adhesive, improving the solubility of (I) and the penetration of the adhesive into porous material. Adhesives containing sulfates are used for inflexible material such as floorings or in musical instruments. Adhesives without sulfate are used for leather, textiles, paper, wood, and porcelain. Fillers such as chalk, gypsum, or kaolin (2-8 parts per part of (I)) may be added to adhesives used for flooring. The above adhesive is less expensive and less toxic than nitrocellulose-base adhesives dissolved in ether or ketones. It can be used for gluing materials that contain nitrocellulose without softening. Nondehydrated nitrocellulose may be used for producing this adhesive. [Abstracter's note: Complete translation.]

Card 2/2

S/081/62/000/024/023/052
B117/B186

AUTHORS: , Penczek, Piotr, Purko, Romuald

TITLE: Nitrocellulose adhesives

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 24 (II), 1962, 851,
abstract 24P282 (Polimery, tworzywa wielkocząsteczkowe, v. 6,
no. 12, 1961, 388 - 391 [Pol.; summaries in Eng. and Russ.])

TEXT: Requirements, properties, and principles of choosing raw material (nitrocellulose, softeners, solvents, diluents, stabilizers, and surface-active substances) for the production of nitrocellulose adhesives are given. The properties, methods of gluing, application and some recipes of nitrocellulose adhesives are described as well as the characteristics of five brands of adhesives produced by the "Pronit" chemical plant of the Polish People's Republic. The method of producing nitrocellulose adhesives patented in Poland (Patent of the Polish People's Republic 44675, RZhKhim, 1962, 24P559). A less expensive adhesive was obtained on the basis of NC₄ nitrocellulose mixed with ethyl alcohol and aromatic hydrocarbons. Non-dried nitrocellulose is used for producing the adhesive. The water is bound with anhydrous sodium or magnesium sulfates. [Abstracter's note: Card. 1/2

Nitrocellulose adhesives

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B117/B186

Complete translation.]

Card 2/2

S/081/63/000/003/033/036
B144/B186

AUTHORS: Brojer, Zbigniew, Kazowski, Zbigniew, Penczek, Piotr

TITLE: Method of obtaining thermoreactive compounds from epoxy and novolak resins

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 3, 1963, 616, abstract 3T225 (Polish patent 45738, March 20, 1962)

TEXT: A method is patented for obtaining thermoreactive epoxy-novolak compounds (I) from epoxy resins (II) and from phenol formaldehyde novolak resins (III). The molecule of II contains >1 epoxy group and has an epoxy number ≥ 0.1 g-equiv per 100 g resin. The molecule of III contains >2 phenol groups. Amines with the structure $C_6H_5N(R)(R')$ were used as catalysts, where R and R' are the same or different alkyl radicals. Per 100 parts by weight II, 30 - 300 parts by weight III are used. The catalyst quantity is 0.01 - 5 parts by weight per 100 parts by weight of a mixture of II and III. The optimum curing temperature is 150 - 200°C. When I are obtained, no water separates. I has a low shrinkage, good electric properties and can be kept at $\sim 20^\circ C$ for some months without

Card 1/2

Method of obtaining ...

S/081/63/000/003/033/036
B144/B186

deterioration of the properties. It is used for producing articles of laminated plastics (based on mineral or organic fiber filler), plastics (with mineral or organic fillers), glues (in the form of solutions), as well as molded articles. The articles have a high thermal stability and good physical and mechanical properties. The cost of I is relatively low. Example: - I for molding is obtained from (in parts by weight): II (low-molecular with epoxy equivalent 0.5 g-equiv per 100 g resin) 100, III 100, dimethyl aniline 0.2. Dimethyl aniline is added to III and heated under stirring to 140°C. II is heated separately to 140°C. The two resins are mixed and the air is removed in vacuo. I is obtained, from which articles are molded. [Abstracter's note: Complete translation.]

Card 2/2

PENCZEK, P.

"Reinforced polyesters in the ship-building industry" by
M. Berger, W. Krolikowski, G. Mizgier. Reviewed by P. Penczek.
Polimery 7 no.3:110-111 Mr '62.

PENCZEK, Piotr

Terpene reaction products with maleic anhydride as hardeners
of epoxide resins. Polimery tworzyw wielk 7 no.6:210-215 Je '62.

1. Instytut Tworzyw Sztucznych, Warszawa.

PENCZEK, Piotr

Properties of the Polymal 130 polyester resin with increased thermal resistivity. Polimery tworzyw 7 no.11:419-420 N '62.

1. Instytut Tworzyw Sztucznych, Warszawa.

38712
C/004/62/009/006/003/007
D029/D109

15. 8540
AUTHORS: Klosowska, Z., Graduate Engineer, Ostrysz, R., Graduate Engineer,
and Penczek, P., Graduate Engineer

TITLE: Influence of end groups in unsaturated polyester resins on the
latter's dielectric properties

PERIODICAL: Plaste und Kautschuk, v. 9, no. 6, 1962, 267-269

TEXT: Dielectric properties of polyester resins are described only fragmen-
tarily in literature. The authors investigated the dielectric properties of
three varieties of the hard, highly unsaturated resin "Polimal 109" and the
elastic, little-unsaturated resin "Polimal 150" of Polish production. The
three varieties were: I) with a preponderantly high content of carboxyl end
groups, II) with a preponderantly high content of hydroxyl end groups, and
III) with approximately equally high contents of both types of end groups.
Heating (150 h) of the hardened elastic resins at 90°C improves the dielec-
tric properties. Further heating (another 150 h) does not improve such pro-
perties. The heating results in a decrease of the elasticity. The resin in

Card 1/2

BROJER, Zbigniew; PENCZEK, Piotr; PENCZEK, Stanislaw

Epoxy resins from nonsaturated compounds; their synthesis
and properties. Pt. 1. *Przem chem* 41, no. 8: 437-440 Ag '62.

1. Instytut Tworzyw Sztucznych, Warszawa.

HENCZEK, Piotr; ROZWADOWSKA, Anna

Properties of the system: Cellulose nitrates-ethyl alcohol-ethyl ether. Przem chem 41 no.8:451-454 Ag '62.

1. Instytut Tworzyw Sztucznych, Warszawa.

BROJER, Zbigniew; PENCZEK, Piotr; PENCZEK, Stanislaw

Epoxy resins from nonsaturated compounds; synthesis and properties.
Pt. 2. Przem chem 41 no.12:684-687 D '62.

1. Instytut Tworzyw Sztucznych, Warszawa.

PENCZEK, P.

Cast resins as dielectrics as subject of a seminar in Breslan,
September 21-22, 1963. Polimery tworzyw wielk 8 no.12:483-484
D'63.

PENCZEK, Stanislaw

Prospects for ionic polymerization. Pt.1. Polizery
tworz wielk 9 no.11:454-458 N '64.

1. Department of Polymerization of the Institute of Plastics,
Warsaw.

PENCZEK, Stanislaw

Prospects of ionic polymerization. Pt.2. Polimery tworzą
wielk 9 no.12:503-506 D '64.

1. Department of Polymerization of the Institute of Plastics,
Warsaw.

P/016/62/000/011/001/006
D204/D307

AUTHOR:

Penczek, Stanisław, Master of Science,
Engineer (see Association)

TITLE:

Ionic and stereospecific polymerization
of organic oxides Part I. Anionic poly-
merization of α - oxides

PERIODICAL:

Wiadomości Chemiczne, no. 11, 1962, 643-658

TEXT:

The present paper constitutes a review
(1863 - 1962), based on 34 Western and 4 Soviet-bloc references,
and is aimed at presenting the fundamental problems and some
perspectives in this field. After a summary of the earlier
work, the nature, effects and preparation of catalysts (alkali
metals, amines, sodamide, ZnO, CaO, SrO, SrCO₃, Be(OH)₂, Mg(OH)₂
etc.) are briefly described. Attention is focused on the hydroxi-
des and alkoxides of the alkali metals, and the simple mechanism
of Krylov and Sinyak (Vysokomolekularnyye soyedineniya, 1961,
3, 898) and of Gee et. al. (J. Chem. Soc., 1959, 1341) for the

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P/016/62/000/011/001/006
D204/D307

Ionic and stereospecific ...

polymerization of ethylene oxide catalyzed by alkoxides is quoted. Confirmations of this mechanism and the deviations observed are described and discussed. A short account is given of the polymerization of propylene oxide with solid KOH, in view of the possibility of stereospecific polymerization and the potential application of the resulting polyethers to the production of polyurethanes. Reaction mechanisms proposed by Price and by Simons and Verbanne are compared, favoring the latter. The reaction mechanism suggested by Szwarc for the Na naphthalene-catalyzed polymerization of ethylene oxide is given. It is concluded that, in the majority of cases, in the presence of basic catalysts the epoxide ring of the (unsymmetrical) cyclic ether is broken to give an anion connected to the secondary rather than the primary C atom; the resultant chain is therefore composed of units arranged in a head-to-tail manner. Pure stereoisomers thus polymerize to crystalline, optically active materials, unless the catalyst causes an inversion. There are 2 tables.

Card 2/3

Ionic and stereospecific ...

P/016/62/000/011/001/006
D204/D307

ASSOCIATION:

Head of: Zakład Polimeryzacji w Instytucie
Tworzyw Sztucznych, Warsaw (Polymerization
Establishment of the Institute of Synthetic
Materials, Warsaw)

SUBMITTED:

May 12, 1962

Card 3/3

BROJER, Zbigniew; PENCZEK, Piotr; PENCZEK, Stanislaw

Epoxy resins from nonsaturated compounds; synthesis and properties.
Pt. 2. Przem chem 41 no.12:684-687 D '62.

1. Instytut Tworzyw Sztucznych, Warszawa.

P/016/62/000/012/001/003
D204/D307

AUTHOR: Penezek, Stanislaw, Master of Science, Engineer
(see Association)

TITLE: Ionic and stereospecific polymerization of organic
oxides. Part II. Cationic and stereospecific poly-
merization of α -oxides

PERIODICAL: Wiadomości Chemiczne, no. 12, 1962, 717-739

TEXT: The present work is a continuation of an earlier
review (this periodical, no. 11, 1962, 643) concerned with the anion-
ic polymerization of α -oxides. A brief summary is first given of
the general characteristics of polymerization over SnCl_4 , BF_3 ,
 $\text{BF}_3 \cdot \text{OEt}_2$, TiCl_4 , SbCl_5 , AlCl_3 , ZrCl_4 , FeCl_3 and similar catalysts,
focussing the attention on systems ethylene oxide/ SnCl_4 and α -oxides
/ BF_3 , basing the discussion on Western work. A detailed account is
given of the stereospecific polymerization of propylene oxide, compar-
ing the effects of basic (KOH) and acidic (FeCl_3) catalysts. These

Card 1/3

Ionic and stereospecific ...

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results are discussed, concentrating on the structures and properties of the remaining polymers, on the kinetics, and on the probable mechanism of the reaction with FeCl_3 . The catalytic action (for the stereospecific polymerization) of the alkoxides of the IIIrd group metals (chiefly Al) is indicated, and that of organometallic compounds is treated in greater detail. It is concluded that the characteristics of the ionic polymerization of α -oxides over anionic, cationic, and coordinated catalysts are widely variable, and that the proposed mechanisms are only broad approximations, except in the simplest systems. Insufficient data are available to allow a general set of rules to be established; one point in common appears however to be the formation of the ionic (Metal ($\delta+$) - O ($\delta-$)) bonds. Formation of a crystalline polymer from an oxide containing an asymmetric C atom may be due to steric hindrance, exerting an unusually pronounced effect when more than 1 chain are growing from a metallic atom, and may be facilitated by the presence of a solid phase possessing specific, so far unknown, characteristic. There are 1 table and 33 references: 2 Soviet-bloc and 31 non-Soviet-bloc.

Card 2/3

Ionic and stereospecific ...

P/016/62/000/012/001/003
D204/D307

ASSOCIATION: Head of: Zakład Polimeryzacji w Instytucie Tworzyw
Sztucznych, Warsaw (Polymerization Establishment
of the Institute of Synthetic Materials, Warsaw)

SUBMITTED: May 12, 1962

Card 3/3

BROJER, Zbigniew; PENCZEK, Piotr; PENCZEK, Stanislaw

Epoxy resins from nonsaturated compounds; their synthesis
and properties. Pt. 1. Przem chem 41, no. 8: 437-440 Ag '62.

1. Instytut Tworzyw Sztucznych, Warszawa.

PRINCZEK, Stanislaw

Thermoplastic polyether, Hercules powder. Przem chem 41
no.8:427-431 Ag '62.

1. Instytut Tworzyw Sztucznych, Warszawa.